

THE NORTH AMERICAN STATUS OF MELIGETHES NIGRESCENS STEPH. (NITIDULIDAE)

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Meligethes nigrescens Steph. was described from England in 1830. Under the name *picipes* it was redescribed from the vicinity of Berlin by Sturm in 1845. Though the synonymy of the two names has been recognized at least since 1861 (Waterhouse, Cat. of Brit. Col. 1858-1861, p. 38), Sturm's name has continued in use until a recent publication by Easton (Ent. Mo. Mog. 87, 1951, p. 283). Easton (Proc. U. S. Nat. Mus. 104, 1955, pp. 99-100) reports the species in the Old World as occurring throughout the British Isles and Europe and ranging to Madeira, the Canary Islands, North Africa, Cyprus, and the Caucasus; and it was described from central Siberia by J. Sahlberg in 1903 (Öfv. Finska Forh. XLV, 10, p. 18) under the name of *circularis*.

The American history of the species starts with a unique specimen collected by LeConte on the north shore of Lake Superior between 1848 and 1850 and cited as *obsoleta* nom. nud. (LeConte in Agassiz's Lake Superior 1850, p. 223). A second unique specimen was described in 1857 from "Oregon" under the name of *siminulum* by LeConte (Rep. of Explor. and Surv. Miss. to Pac. XII, pt. 3, pp. 15, 37), and twenty-two years later these were the only two American specimens known to Horn (Trans. Am. Ent. Soc. VII, 1879, p. 314). The third specimen of *nigrescens* to be recorded from North America is one recorded by Easton (l.c.) as taken by Keen at Metlakatka, B. C. in 1915 and now in the British Museum, and the fourth specimen from Hood River, Oregon in 1921 (Parsons *in litt.*). During the twenties the species began to show up in the northeastern United States: Pennsylvania 1923, New York and New Jersey 1925, Maryland and Massachusetts 1930, Connecticut 1940, Vermont 1949, Maine 1950, Ohio 1952 being the first dates recorded (Easton, Parsons, Frost *in litt.*). My earliest specimens were taken at Monroe, Ore. in 1930, Castle Rock and Vancouver, Wash. in 1932, Sheridan, Ore. in 1933, and a series from Cornelius near Hillsboro, Ore. in 1934, all these localities being west of the Cascade Mts.

By the late thirties, *Meligethes aenescens* had become of economic importance in northwestern Oregon where it was interfering with the seed production of several types of clover (Dickason, Coop. Econ. Ins. Rep. 3, 1953, p. 345, as *seminulum*). In 1943 Parsons (Bull. Mus. Comp. Zool. Harvard 92, pp. 255-256) noted the discontinuous distribution of *seminulum*, and it now appears that its distribution was even more discontinuous than he noted, since he writes me that his records from Manitoba

and Alberta were probably founded on specimens of *canadensis* Easton. In 1948 (Peng-Fi and Larson, Jr. Econ. Ent. 42, 1949, p. 399, as *aeneus*) the species was abundant at North East, in extreme northwestern Pennsylvania, where it was interfering with the artificial pollination of muskmelon (*Cucumis melo* L.) flowers. In 1954 Dickason (Jr. Econ. Ent. 48, pp. 127-128) noted that the larvae of *seminulum* developed in a couple of introduced species of vetch (*Vicia*), the adults later transferring their attentions to the flowers of several introduced species of clover (*Trifolium*) and trefoil (*Lotus corniculatus* L.). He suggested that it was "a native insect becoming a pest because of a change in agricultural practices," to wit, the cultivation of hairy vetch (*Vicia villosa* Roth), which began on an extensive scale in the Willamette Valley (Oregon) around 1928. Dickason added, significantly, that a "native host plant has not been determined." Finally, Easton (l.c.) noted the identity of *nigrescens* Steph. and *seminulum* LeC.

It is the purpose of the present note to suggest that the peculiar history and present discontinuous distribution of *Meligethes nigrescens* in North America is explicable on the hypothesis that it is not indigenous to this continent but has been introduced from the Old World as a result of commerce.

Nigrescens is a species that, when it occurs, frequently occurs in abundance, and, the simplest sweeping technique suffices to collect it, so that its failure to be taken in the northeastern United States previous to 1923 and to be mentioned in the pre-1940 literature indicates the probable absence of the beetle from that area during most of that period. The spotty nature of the earlier western records, the absence of native host plants, the present discontinuous and apparently expanding distribution, and the frequent abundance in which it occurs are, I suggest, most probably accounted for on the assumption that the species was introduced—perhaps several times—in the early days of hairy vetch cultivation and is still in the process of extending its range.

Finally, the hypothesis that *Meligethes nigrescens* is introduced in North America is strengthened somewhat by the fact that, as Dr. Easton writes me, it is probably introduced in both Morocco, where it was first taken in 1914, and in Arabia.

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